

AMERICAN BEE JOURNAL

DEVOTED EXCLUSIVELY TO BEE CULTURE.

Vol. X.

CHICAGO, MAY, 1874.

No. 5.

Correspondence.

Correspondents should write only on one side of the sheet. Their best thoughts and practical ideas are always welcome; no matter how rough, we will cheerfully "fix them up."

For the American Bee Journal.

Items from Argus.

MR. EDITOR:—Your remarks in the February number on bee meetings are to the point, and demand the attention of every bee-keeper, inasmuch as it is for their interest to meet, tell their experience, compare notes and criticise. A bee friend suggests that every Town, County and State ought to have meetings as often as desired, and that delegates be sent to the State Convention, and let these again send delegates to the National Convention, having their expenses paid.

In this way the best talent will be collected, when subjects of the most importance will be discussed, and a greater interest awakened, and, too, the published reports of such meetings will be of far greater interest as well as benefit to every progress-loving bee-keeper. As a rule, so little has been done at these meetings it really did not pay for the time and money spent. And another thing: some of the ideas advanced are not fit to be published unless we intend to progress crawfish fashion.

Take for instance the Convention at Topeka, Kansas, held last September (see AMERICAN BEE JOURNAL for November) where some new ideas were advanced that may lead to a "*great discovery in apicultural science*." Mr. Meador says after the queen is impregnated "*all the eggs produce females, and that the male bees were generally produced by eggs from the worker bee that was fed for the purpose*." Now all practical, intelligent bee-keepers know that is not so, for a hive in a normal condition never has a fertile worker, and all the drones in such a hive are produced by the queen. One season's operations in an apiary will convince a mere tyro of this.

Again, Mr. O. Badder says he "removed a dozen or more eggs from worker cells to drone cells, and at the same time removed the queen from the hive, and all the eggs thus removed hatched perfect drones as far as the eye could detect. No other solution could be given to this experiment than that the bees removed the spermatozoa that changes the character from male to female after they had been placed in the drone cells."

From these statements I conclude as follows:—

1. The experiment was a very imperfect one, because there was not that careful microscopical examination necessary to test the truth of his statement.

2. His conclusion is a very erroneous one, because the egg is not fertilized by the life-giving principle, the spermatid filament, remaining on the outside, as his language would seem to imply.

3. The whole shows an unpardonable ignorance of physiology, because it overturns the well-established facts in the reproduction of the honey-bee. It is very evident that the nature and permanent location of the spermatozooids is not understood, for we learn from the best authority that when an egg leaves the ovary it slips past the seminal duct, where it receives a portion of its contents, and the seminal filaments being very active soon find their way into the micropyle or opening of the egg. Now how the bees could remove the spermatozooids from the egg without destroying such a delicate article I will leave for Mr. Badders to explain.

I was somewhat surprised at the secretary sending the statements, and more so when the Editor published them without note or comment. A good deal has been said regarding the cause of bee disease, and some, I think, have arrived at pretty near the truth, but it is just fun to see Friend Quinby astride his hobby, old Boreas, and shouting with all his might, "I tell you, gentlemen, it is cold that kills the bees, for what I know I *know*."

Behind him, away in the distance, is another hobby, old *Sirupy*; its rider is hatless, coatless, and belaboring his nearly worn out favorite. He is also shouting at the top of his voice: "Taint cold that kills the

bees, depend on't;" "'tis bad honey;" "'twont do;" "'twill kill every time;" "'twould be a great gain in honey if sugar syrup were used, besides nary a bee will catch the disease."

I also see betwixt these two, another rider on his stout, short lard favorite, old *Truth*. I think I hear the gentleman say, Well, if those two friends would only meet hereabouts they would find out they were both right.

For the American Bee Journal.
"Novice."

MR. MANAGER:—Allow me to congratulate you on having made arrangements whereby you can furnish a good, patented, two-story Langstroth hive in Chicago for the moderate price of \$3.30. We would also suggest that as the preference is now strongly turning in the direction of *double-width* instead of two-story hives, you make arrangements, if practicable, to have them made in that way when they are to be used exclusively for the extractor. We believe the expense of making is a *little less* if anything.

As your offer will doubtless furnish a good many with sample hives to work from, we somewhat regret that the size of the frame is between any of the sizes in our classification of frames. As you give only inside dimensions we cannot tell the exact size of your frames, so much depends on the thickness of the lumber used. Is it not best when speaking of frames and hives to give *outside* dimensions of the former, and *inside* dimensions of the latter, for *these must be exact*?

While we are anxious to give Adair full credit for all his suggestions, we cannot think it proper to call double or treble-width hives all "New Idea Hives," for the "New Idea" *was*, if it is not now, set forth as a *patent* hive, and in some respects, it seems to us, a little inconsistent. See *Progressive Bee Culture*, inside of first cover, where he condemns the extractor. His price then given for a Langstroth hive fitted up on the "New Idea" plan, *with right to use*, is ten dollars. Double-width hives were used in our county before this work was published, for he had mentioned in public, making hives four or more feet long. Such hives have an undeniable advantage over the two-story hives, for the extractor, but it certainly was not Mr. A's reason for recommending them thus. We at first doubted their giving an *equal* amount of honey, but should they give more, as he claims they will, we certainly owe him a vote of thanks for his labors in turning the attention of apiarists in that direction. The testimony from those using them is strongly in favor of them, instead of the two-story hives, if we

make some few exceptions, although reports seem to equally favor side entrances, in place of only one at the end, as Adair insists on.

In regard to the "queen's wings" business, we are perfectly satisfied to leave the matter with our readers as it is. Adair has opened and closed the subject, and we have had "our say" in the interim, which we have no wish to change or modify since his last. "Twere no more than justice, however, to say that we *did publish* Mr. A's letter in full, *every word contained* in it, yet he accuses us of publishing only a part. If we thought that any one besides Adair, understood that we were intending to take upon our shoulders the task of punishing "Eminent Naturalist" we might reply to that.

Agassiz's lecture on the honey-bee might have passed uncontradicted twenty years ago, but in the present stage of bee-culture it was only the "worse for him" his persisting in his absurd teachings. How many of our readers have questioned with themselves whether he might not have committed great errors in other matters as well as bees, and as that would be out of our domain should we not hesitate before accepting his teachings as truth when we were not prepared to discriminate? 'Twould be a *huge* joke indeed to think of giving the task of "root"-ing out all the error in the "popular science world," to let alone the task of punishing them for their folly, to

Your old friend,
Medina, O. "Novice."

For the American Bee Journal. Out-Door Wintering.

"Novice" says on page 41, February number: Quite a large number of our beekeepers, with Mr. Gallup among them, contend strongly for out-door wintering." I must here make an explanation. I do not advocate wintering small standard stocks in ordinary standard hives on the summer stands, by any means; but large powerful stocks such as I now raise and such as I want for profit, I believe it would be rather difficult for the most of people to winter in a cellar. Then again such large hives are unwieldy to carry in and out. I have them so heavy that they are all that two men can lift, let alone carry about etc., I have stocks that have as many bees in them as four ordinary standard, strong stocks, or six common stocks. Every person ought to know that such stocks would be difficult to keep cool enough in a cellar. I have been led to experiment in the direction of large hives by seeing bees in a room or small house fixed on purpose. We have seen at different times extraordinarily numerous and strong stocks in such cases, and it occurred

to us that with the extractor and movable combs, we might make this available; and thus far we have not been disappointed in the results. If we have strong, powerful stocks there is always warmth enough to properly evaporate the honey; whereas in small standard stocks it is frequently the case that the honey is not properly evaporated and especially is this apt to be the case in cool, wet seasons. In the large hives there is no tendency to stop breeding at every cessation of honey gathering, for a few days at a time, as there is in common or small standard hives.

Novice will probably say, as he has said before that we are trying to befog or puzzle the novices in bee-keeping. But let him consider that others besides Gallup and Adair are trying those experiments and arriving at like conclusions. We are aware that a hive of four times the capacity of the ordinary standard, or two thousand cubic inches, looks large, and we are perfectly willing to admit that it is large. But what will you do about it; that is the question.

If I mistake not, Mr. Hosmer says, that in the past season he has made some for experiment, of fifteen thousand cubic inches. I know of no law to prevent, and so we will have to let him go on as he sees fit. But Mr. Hosmer says that he has been raising or keeping his best or most prolific queens. Now that is just what I contend—that I cannot afford to sell a queen for one dollar that I can build up a stock from that will occupy a hive of six or eight thousand cubic inches. My impression is that Novice's Hives and Queens are both cheap at one dollar each; and my hives and queens may be cheap at five dollars each. Who knows. Let every one decide for himself. I have sold queens at fifty cents each, but they were only fifty-cent queens, and I never claimed that they were anything else.

The bees are wintering splendidly in this vicinity.

Orchard, Iowa.

E. GALLUP.

For the American Bee Journal. Criticisms Examined.

A friend having called my attention to the last number of *Gleanings*, I borrowed the paper, and found that "Novice" quoted from my circular to show that a calculated yield of one or two hundred pounds of box honey, or two or three hundred pounds of extracted, is a little too much. He "wrote Mr. Q. asking the question," etc. I do not see that this amounts to anything more than an effort to show that I have made a false estimate, and at the same time give an excuse for a sort of tirade against the hive.

He would be pleased to hear where any one had succeeded in obtaining that average.

Had he quoted a little further from that same circular, he would have told his readers where it was done. He very ingeniously gives the number as twenty-five or fifty stocks, which I said nothing about, and it did not belong to him to do it. Why did he not put it at five hundred? He would be still surer not to hear of a case.

I ask of any man of even common fairness, to decide if it was so very absurd to calculate that what had been done, and repeated, might be done again.

I don't claim to know it all, and doubt not, much will be learned after we have all gleaned to the best of our ability. A calculation of even a few pounds more may yet be made. He asks if it "was wise to put it so high when his own apiary averaged less." Without claiming to be particularly wise, I may venture to express a fear that Novice is partially blinded by prejudice. I would ask if it was just to hold forth what my apiary does before his readers, as a criterion to judge of what *can* be done by others, and withhold the fact—which I presume he knows—that I have sold my best bees every year. When I get an order, I select the best—sometimes sell off all the best, and then take from the next best, bees enough for several swarms for the purpose of rearing queens, which do not store surplus, and often have to be fed what others have stored.

Justice would take this into "calculation." I rather think that my estimate was made when thinking of the bees that I sold rather than of such as I kept myself. Of course I meant *good* hives.

¶ We all know of the reduced condition of a large number of stocks in the springs of the last two winters. Few men would depend on such for a fair average, especially if they took into account the fact that brood had to be taken from the best of these reduced hives to build up the poorest.

Now about the hive, which seems to trouble him, in view of "blasted hopes," etc. He asks, "Has he ever considered that the hive itself is only a plain, simple box?"

No, sir. I have not so considered it. When I have made a bottom board of the size I want, and a frame which I hook to it, and it stands alone, and I make a half dozen more, and stand by the side of it, and then take boards just the width and length of the frame and set one on each side, and one on top, I claim that it is a hive of itself, not "a simple box," nor particularly "cumbersome." The frames constitute a part of it. Much has been said about getting hives the right size. This one is adapted to the wishes of all. Frames being added any time to accommodate a large swarm, or taken off if the swarm becomes reduced. It is easier managed, and is much more efficient than

any hive with which I am acquainted, though of course, as it is, there is no more room to set the boxes for surplus than the cheap one he describes.

He continues:—"Full directions could be published in the circular, or even given in the journals, at the trifling expense, to him, of making the measurements and descriptions *once*." Now if he feels that he has not done his share of working for nothing, suppose *he* gives "descriptions and measurements," at the "trifling expense" he speaks of. I would very much like to see it given so plainly that it "could be easily made for four dollars." Two or three years since, I sent him a hive, without charge, appendages and all, rather than undertake to describe it myself. I would like to see the late improvements belonging to the appendage—a device to clasp the corners—*fully* described. Perhaps he could tell how to make it cheaply. If a man does not want anything but the simple hive, to be used for extracting only, I still think it best, and I would like to see it fully described as well as appendages.

As it is desirable for many to secure box honey as well as extracted, I have endeavored to adapt it to either, the advantages of which are easily understood. The boxes that sell best in market are made of glass, costing more than if made of wood to hold the same amount. These boxes, when put on the hive at the side or top, must not be exposed to the light or storms. I have enclosed them by getting out boards for the sides and top, of the right width and length, and have succeeded, after much thought, in having the clasps at the corners—that hold as firmly as nails—so that they can be loosened, and each piece taken away separately, without a jar, and so quietly that not an angry bee can be seen. It was not completed with one effort. Like all else that is worth much, it had to grow gradually; was altered again and again, and when at length I succeeded in getting the present hive and appendages, I found it had cost me in experiments, mechanical labor and brain work ten times the amount asked for it. If any man wants what I use, he can have it by paying a very small part of what it has cost me for the "know how." There are a few men—I mean those with some generosity—who are willing to share somewhat in the expense of getting a good thing. Suppose a man disposed to get up a paper. First, he must have matter, which ought to be his own, to put in it. Then he must reckon type, ink, paper, press, and the labor of printing, etc. He does not get his expenses back when he has printed one or a dozen papers, at seventy-five cents a copy. But when he has everything ready, he can print the second copy, or the thousandth, for a few cents only, and then, if he does

enough of it, he can get remuneration, and a little more, at seventy-five cents a copy.

It may look to some like "pecuniary profit." Now it would be hardly possible to find a man so ungenerous as to claim that because his last paper cost a few cents only he should furnish it at cost before he got recompense for making the first, or even then. Is there any parallel in the two cases—in making a hive and making a paper?

As it is pretty well known how "cumbrous" the hive of itself is, I will not dwell on that, but when it "seems" to him that the smoker would be "cumbrous" I fear that some of his readers might take his "seems" for facts, and I beg that they suspend judgment till they see it work. If I should send him one, it might turn out as with a friend of mine who says he sent him a patent feeder. If he did not claim the invention, he substituted a tea-kettle for the tin tube to hold the feed, and sells it without changing the principle, calling it the "Tea-kettle Feeder." There are some men in the community from whom there is no protection, a patent will not do it. A man can spend his time and money till all is exhausted, endeavoring to assist his fellow men, and when he offers to let others share a small part with him, he finds men ready to discourage him by offering the same thing for just what it costs them after being shown how to make them. How has it been with Mr. Langstroth, who has benefited bee-keepers thousands of dollars, and expended time, money and intellect in giving us a hive—in principle worth more than all before it—in procuring a new variety of bees, and has due him some recompense. But here is a man that has apparently done his best to discourage anything of the kind, by telling where hives and bees can be had for the trifle that would go but a small way towards it. It tends unjustly to deprive Mr. L. of his rights, and gives him to understand that *he* will not be paid for employing his talents to promote bee-culture, and he seems compelled to relinquish the pursuit. What have we gained in the end by being persuaded to purchase a hive or buy a queen for a dollar? We have all heard of the man who peeled the flint for a penny, and spoiled his knife costing fifty cents.

There is much more that ought to be said, but this must suffice at present.

St. Johnsville, N. Y.

M. QUINBY.

H. O. KRUSCHE, Berlin, Wis., remarks as follows: "In my article, 'Do Bees Injure Fruit,' in the March number of the AMERICAN BEE JOURNAL, I stated that the New York Tribune had not seen fit to publish a similar article. But since that, I find that it was published in the Tribune of Dec. 31. It had escaped my notice, and hence I thought it had not been published. I herein apologize to all concerned."

Apiary for May.

This month the labors of the bee-keeper will begin in earnest, populous colonies will begin to prepare for swarming towards the last of the month, and where artificial swarming is not resorted to, they should be kept constantly under the eye of the bee-keeper, in order that they may be hived, and not be permitted to escape to the forest. When the swarm has been shaken down in front of the hive the bee-keeper should sprinkle them with cold water, (especially if the weather be quite warm), and all the bees should be brushed up to the entrance of the hive and driven in, after which the hive should be moved without delay to the stand it is to occupy, as, if it is left where the swarm is hived until night, the bees will have marked the location, and many will visit the spot the next day and perish, for on leaving the hive after being moved to a new stand the bees do not view and mark surrounding objects, having done this the day previous where they were hived and left till nightfall. As a natural consequence many must be lost, not having marked the last location of their hive.

It will still be highly necessary to see that the colonies are not destitute, for it often happens that the weather is so cold and wet, whilst the fruit trees are in bloom, that they are not able to collect honey sufficient to last them until white clover blooms. This will often be the case at the North; in the Southern States it will of course be otherwise. At the South bees may be expected to store a surplus of honey for their owner, and swarming will be quite brisk. A close lookout should be kept after the moth, as many colonies will still be unable to cover all their combs, and are liable to be destroyed by these ravagers. If wren houses are put up, so as to induce these little birds to build close to the apiary, they will catch many moth millers. It is stated by pretty good authority, that ducks are exceedingly fond of moth millers, and that they will catch many of them if permitted to take up quarters about the bee hives. If, however, the bee hives

are kept in the kitchen garden, where cabbage plants are growing, it may puzzle the bee-keeper somewhat to hire his ducks not to eat them along with the moth miller.

It will be well enough for the bee-keeper to select his ground this month, in which to sow a patch of buckwheat, for the special benefit of his bees. When the time of the season arrives for sowing it, the farmer who keeps bees can also afford to make preparations to sow Alsike clover seed another season, as the seed will not be likely to cost as much as at present. This variety of clover is not only superior for bee forage, but is also excellent for hay, being inferior to no other variety cultivated in this country, but is said by many to be superior to our best red clover, giving a larger yield of both seed and hay. Care should of course be taken in the selection of parties to purchase seed from, as it is not always pure. I have seen some that was simply common white clover seed and green besides, so much so that it would not grow.—*Scientific Farmer.*

For the American Bee Journal. A Visit to Adam Grimm.

He isn't *grim* at all. A round faced, clean shaven German, of medium stature, perhaps fifty years old; very earnest, and withal pleasant in manner, impressing you at once as a thoroughly candid, honest man. Slow to adopt new ideas, his careful conservatism will, no doubt, sometimes appear to the more volatile Yankee as old foggy stubbornness.

On a very hot day last summer, just at the beginning of the bass-wood harvest, I went to one of his apiaries, and found some eighty hives under a little cluster of lindens, in the centre of which sat his daughter Maggie, pretty well covered up with a huge sun-bonnet (Katie is married—the one who did the big day's work extracting). Very shortly Mr. Grimm put in an appearance on his round of visits to his different apiaries, for he had in all some seven or eight hundred colonies. For a bee veil he has what looks for all the world like a Dutch night-cap made of heavy sheeting, having the face covered with a wire cloth, in the centre of which is a round hole, through which passes streams of tobacco smoke and words of wisdom. He occupied himself principally that afternoon in putting on boxes, taking off the honey board entirely, and

putting the boxes directly on the frame. The boxes did not quite cover the frame, leaving a space of an inch or so at the back end, and then he blocked up the back end of the cap or cover so as to allow free upward ventilation. Bee-keepers take a note of this, as Mr. Grimm considers it a *strong point*, making a decided amount of difference in the amount of honey stored. In the spring he had fed several barrels of extracted honey, and considered himself largely the gainer by it.

Mr. Grimm thinks he can do better with boxes than to depend upon the extractor. Certainly, with his large number of hives, it would be a difficult thing to keep the honey extracted. He does not get so large a yield per hive as many others, but having so many hives his aggregate yield is, I believe, larger than that of any other. The question of extractor *versus* boxes, perhaps, depends upon the number of colonies kept. If I had Novice's number, I certainly should use the extractor—if Mr. Grimm's, I should be inclined to boxes.

After all, is not the important question, how to get the most money from one's whole stock of bees rather than to get the largest yield per hive? If so, I think Mr. Grimm is entitled to the palm. He showed me, on a previous visit, accounts of one year's work, yielding him ten thousand dollars. His own belief is that his success is due mainly to the superior breed of bees he has. As is pretty well known, he prefers the smaller dark Italians. I mentioned to him that I had kept my bees the previous winter in a cellar with tight cement bottom, and they had come out very mouldy. He replied that he had been obliged to abandon the nice cellar with cement bottom that he had built a year or two previous, and believed a cellar for bees should *not* have cement bottom.

Recently Mr. M. M. Baldrige mentioned to me one or two cases in which bees had kept unusually well in cellars with open cisterns in them. Perhaps the water absorbed the impurities of the air, and the earth bottom of a cellar may act in somewhat the same way.

Mr. Grimm thinks highly of Novice's bee-feeder, but doesn't like his quilt. He uses for a honey board a plain pine board, an inch thick, with a hole (inch hole, I think) for the bees to pass through to feed. Instead of feet as Novice has under his feeder, he has a close rim of tin which supports the feeder and prevents the escape of heat.

Mr. Grimm has lately commenced the banking business, but thinks he can make more money *bee-ing*, so he will continue in both departments.

As I took no notes of my visit but depend entirely on my memory, I may possibly not

represent everything exactly straight, but I should not be so *very* sorry if I did tell a few lies about Mr. Grimm, if thereby I could get him to give a correct version with his own pen in the AMERICAN BEE JOURNAL.

Although a very *busy* man, I don't believe he is so selfish as to deny us the benefit of his experience if he really thought it was wanted. What little business I have had with him has been most satisfactory, and if I were buying bees or queens I would rather *not* see them, but trust to his selection. If having all the bees one can take care of, a pleasant wife and family, and a comfortable home, can make one happy, Mr. Grimm *ought* to be happy.

B. LUNDERER.

For the American Bee Journal.

California as a Bee Location.

MR. EDITOR:—The enclosed letter will explain itself. If you think it is not too lengthy to publish in the AMERICAN BEE JOURNAL, it would be interesting to many readers, as it has been to me—especially those seeking good "bee" locations.

Cynthiana, Ky.

H. NESBIT.

H. Nesbit, Dear Sir:—I hasten to answer your letter, which was received a few days ago. Most of the honey shipped from here is strained by the heat of the sun, by putting it on perforated iron plates in a boat-formed, glass covered reservoir, from which it runs into the "tank." The wax melts after most of the honey has run out, goes through the plates, and when cold is removed from the strainer.

Three years ago I got a honey-extractor, and since then several other bee-keepers have commenced using it. A few only put honey up in the comb—mostly in two pound cans. It is difficult to ship comb-honey in frames to San Francisco, owing to the many changes it has to go through: from apiary to railroad, from there to a lighter, then to a steamer, and finally to a wagon, before it is received at the store. This will, however, be remedied, when we in a few years, get a railroad through to San Francisco.

This, as well as the adjoining counties of San Bernardino and San Diego, is a very good locality for bee-keeping. As we have no snow except on top of the mountains, and very little frost, in many places none at all, we leave the bees on their summer stands without any protection, and the bees are flying every day except when it is cloudy or rains, which, alas! does not happen as often as we desire. There is no time during the year when there are not some flowers to work on. The last four or five years have been very dry, owing to a scarcity of rain in the winter. It is a miracle if it rains here between May and No-

vember. Consequently the bees have swarmed very little, and the only safe mode of increase is by artificial swarming.

This winter, however, we have had more rain than of late, and everybody expects a good honey season. By using the extractor you can in any ordinary season rely on getting an average of at least one hundred pounds of honey from each swarm, besides doubling your stock, as I shall further explain. The honey season lasts from May till the end of September. In July the flowers give very little honey; in August and September the bees gather some, but the principal harvest is during May and June. It does not require much to take them through the winter, but we generally leave them all the honey they have in the lower story at the end of the season. The bees here are, with a few exceptions, all black. Foul-brood troubles us some, but not enough to discourage anybody.

We plant nothing for the bees, although it might be well to have a field of rape or other honey-producing plants coming in by the first of July. Bees are worth from \$2.50 to \$5 in box hives. Mr. Harbison, I believe, sells Italians in his frame hives at \$12 a swarm. Box hives are still much used, the honey being cut out of the upper part, and strained as described above. The same method has been used a good deal with the Harbison hive, which for a long time has been the principal frame hive in use here. A couple of years ago, however, Mr. John Beckley of Minnesota introduced the Langstroth hive, which is being adopted by a number of bee-keepers, and, no doubt, will be "the" hive within a few years.

The size of our frames is eleven and three-fourths inches long by nine and three-fourths inches deep, outside measure. The hive, being eighteen inches long inside, will take from ten to twelve frames in each story, according to the thickness of the comb. All the apiaries kept for business are situated at the foot of the mountains or in the canons. Many bees are found scattered round in the valleys, but only a few at each place, as the harvest-time is short, and the bees will just gather enough for their own use and for home consumption. They swarm, however, much more and earlier in the valleys than in the mountains, because the willows and some other plants commence blooming about New Year, and give an abundance of pollen and some honey, which stimulates the bees to breed early.

The honey from willow and mustard, the principal honey-sources in the valley, is strong and not very palatable, besides granulating very fast. Wild sage gives a fine flavored, colorless honey, sumach a straw-colored honey with good flavor. The former always takes the best price. So in

looking for a location for an apiary, or "bee-ranch," as it is here called, these are the principal plants to have near and in abundance. Alplaria, yellow alfalfa (wild), sycamore, oak, mountain-mahogany, greasewood, and a variety of other plants and trees give considerable honey. In some localities the alders are often covered with honey-dew in the fall.

A few enterprising bee-men are this year trying an experiment, which, probably in time, will be repeated by many others. About New Year they moved their bees to the valley, where they are already preparing to swarm, raising queen-cells and drones, and a few hives have even before this date been divided. By the first of May they will have been doubled, moved back to the mountains, and commenced their honey harvest in good earnest. As I have only been in the business four years, I cannot tell you what the increase would be for so long a time as you ask; and being inexperienced and "bothered" with an unmanageable patent hive, I have not had much success in that respect. Moth-worms have been more troublesome than foul-brood, seeming to thrive exceedingly well in this warm and dry climate, and aided, no doubt, by the half-hundred safe retreats in the just-mentioned hive, where the moths are proof against the attacks of the bees.

Nearly all the honey from here goes to San Francisco, mostly in five-gallon tin cans, and sells at from eight to fifteen cents for strained and extracted, and twelve to twenty-five cents for comb-honey. We have had considerable trouble in disposing of the honey for the last two years. It would remain in the store, there being no demand for it, until it was candied, and then be sold for a very low price. Twelve and one-half cents is, however, the average, and regarded a fair price for strained honey.

The Bee-Keepers' Association of this County has now taken the matter in hand, and we hope to succeed in getting better prices and quicker returns by putting the honey up in cans and glass jars of sizes to suit customers, and by placing the bulk of the honey in the hands of one firm, which will prevent the price from falling as low as it has of late. At the last meeting, a few days ago, the president was authorized to go to San Francisco, and confer with merchants there about the sale of honey for the coming season. We are also in communication with Mr. Chas. F. Muth of Cincinnati, O., in regard to the sale of jars, no action having been taken yet on that matter by the Association. Several members expressed, at the last meeting, a desire to take their part in a car-load, but it was thought best to wait until we hear from San Francisco which size of packages will be most desirable.

If you are an "old bee-keeper," bee-keeping will no doubt pay you well here, and if you want to raise fruit, you can, on suitable land and with the necessary water for irrigation, add this branch to your resources. It is customary here to take bees "on shares," giving half the increase and half the products to the owner, the same receiving back the original stock at the end of the term, and both parties sharing the expenses equally. Few bee-keepers hire any assistants except in the height of the season, and the wages range from fifteen to forty dollars and board. From one to two hundred hives may be kept in one place, according to the size and quality of the range. Clarke's and Harbison's apiaries are in San Diego County, south of here, and about one hundred miles distant. Harbison has formerly resided at Sacramento, but I see by the AMERICAN BEE JOURNAL that he has removed his bees south.

We move the bees from twenty to thirty miles when moved as above mentioned.

I believe, now, that I have answered all your questions. Any further information shall be cheerfully given, as far as I am able. You are at liberty to publish this in the AMERICAN BEE JOURNAL if you think it will interest any body else. My address is at present, Los Angeles. Care of Henry Beckley, Esq. Respectfully,

WM. MUTH-RASMUSSEN.

Los Nietos, Feb. 24, 1874.

For the American Bee Journal.

Wintering Bees.

Could I have ordered the weather the past winter I could not have been suited better. Our losses had been severe the two preceding ones, causing much anxiety. The past winter will throw much light on many points that have been suggested as the cause of loss. We have had warm spells frequently, which seems to be additional proof that steady cold was at the bottom of the trouble.

That dysentery is not caused by the quality of the honey is strongly proved by there being none of it when they have been kept sufficiently warm. I know a lot of bees that have been kept in the cellar since the tenth of November, where the mercury has not been below forty-two degrees nor above fifty degrees during the time. Never in better condition—combs bright and clean. I hope that whoever has kept strict account of the temperature will report condition of their bees, whether disquieted from any cause, and how much. We shall, after a while, get the proper temperature, so that we can winter bees as safely and surely as cattle or horses.

I have much more to say on this subject some day.

M. QUINBY.

For the American Bee Journal.

A New Smoker.

MR. EDITOR.—Seeing so many contrivances for smoking bees, I will send you directions for making a smoker that I have used and like very much. Take a piece of paper eight inches by twelve, and with corn silk make a solid roll of about one inch thick; paste down the edge of the paper and you will have a smoker that you can depend on. You can blow the smoke where you want it; it leaves no bad effect on the bees.

A great many bees have been lost here this winter, I think it was because they were all old bees.

C. W. STOKES.

Atchison, Kan.

For the American Bee Journal.

Which is Best?

We keep bees for the honey and wax they secure us. Aside from these objects, we should no more think of keeping them than of keeping hornets and wasps. As honey is the principal object, the number of colonies kept, and the character of our hives and honey receptacles, should be formed and regulated with reference to that object. They, in the number of their colonies and hives, may be so regulated as to give a very handsome return at a very trifling expense, or so as to require considerable expense, a great deal of care and perplexity, and their product be very trifling and unsatisfactory.

In the opinion of many, success in bee-keeping depends upon luck and chance. Care and skill, with intelligence, will be likely to secure good luck or success. The careless and inattentive will fail, there is no chance in this matter. If the number of colonies in a field exceed the capacity of the field, some of them must perish. If the capacity is greatly exceeded by the number of colonies, probably all of them will perish. The number of colonies will be increased by swarms in the swarming season something in proportion to the size of the hives. Very small hives will probably give most swarms. Very large hives will probably not swarm at all. If standing in the hot sun, the size of the hives does not secure against swarming. Effectively shaded from the sun, a hive of one thousand cubic inches, or more, will not be likely to swarm; a hive of two thousand cubic inches, or less, will be likely to cast from one to four swarms. The operation of these hives will be, the small ones will average two or three swarms each. The providing for three or four colonies for winter will leave little room for surplus.

If we commenced with one, at three swarms from each hive, the first season there will be four, the second season sixteen, the third season sixty-four, the fourth

two hundred and fifty-six. In a field that will sustain but about thirty swarms, they must most of them perish the third winter. In a field that would sustain sixty swarms only, they must perish the fourth winter; and some of them have been fed the third winter or have perished then.

Suppose that, instead of thirty small swarming hives, we place eight or ten swarms in hives of about twenty-five hundred cubic inches in a breeding and wintering apartment, with surplus honey boxes to contain one hundred pounds of surplus honey in intimate connection with the breeding apartment; if effectively shaded from the sun, they will average in a good season one hundred pounds each.

If they are screened from the heat of the sun, and in a cool place, there will very few, if any, swarms issue from them. If the season is an unfavorable one, they will find honey enough to fill their wintering apartments, and furnish some surplus. There is no danger of starvation. There is room for thirty colonies with little surplus; there is surely, then, room for ten colonies and some surplus in a poor season.

The investment in bees in such hives has something of permanency. The keeper need have no fear of loss from starving. He need not have any anxiety about his bees running out. If his stock is kept within the capacity of his field, if his surplus boxes are placed on in season, and his bees duly shaded, he has but little trouble or care about them but to remove the surplus boxes when filled, and supply the empty ones when needed, and secure his surplus honey.

It is necessary to observe these few things:

1. Limit the number of your colonies to the capacity of your field. Better to fall short of than to exceed the number that will have full employment in gathering the honey.
2. Give ample room in the breeding and wintering apartment—two thousand five hundred inches at least. Then if you have not too many bees in your field, it will be unnecessary to feed them, with the ample room for stores; and it is simply the question whether you will have the honey in your field with little trouble and care, or will you live in constant care and perplexity, get at most not one-tenth of your honey, and have your bees almost all perish in every three, four or five years.

JASPER HAZEN.

Woodstock, Vermont.

Waldridge, a German writer, says he saw forty large bee-hives filled with honey, to the amount of seventy pounds each, in two weeks, by being placed near a large field of buck-wheat in flower.

For the American Bee Journal. "Our Contributors."

I find the AMERICAN BEE JOURNAL invariably both interesting and instructive. Often re-reading many articles which have appeared in the last eight months I feel like thanking all the correspondents, both old and new, for contributing to make us such a readable paper.

While I deeply regret that Mr. Langstroth has been unable of late to contribute anything to the pages of the JOURNAL from his rich store of knowledge and experience, I am pleased that Mr. Quinby again favors us with occasional articles. Although this is an age of progress and new ideas, we cannot well dispense with the safe counsel and instruction of these two veteran bee masters. Mr. Quinby gave us a noble and dignified article on one of the knotty questions of the day, and while I must dissent from the conclusion he arrives at, in regard to a warm house being the only safe way to winter bees, I admire the spirit and style in which his ideas are given.

Mr. Chas. F. Muth tells us of the successful wintering of bees on their summer stand by himself and some of his neighboring bee-keepers, and thinks that it can be made uniformly successful. Will not those who adopt this plan of wintering, give us more particulars. I know that there is quite a difference in wintering in the vicinity of Cincinnati and colder locations, though that vicinity was not exempt from the bee disease. But I don't intend to discuss this subject here, I merely wish to call out "Our Contributors."

We have not heard lately from Mr. Bickford who used to practice successful wintering out doors, in a colder climate than Cincinnati, and who gave some very interesting articles on several subjects. I know that the readers of the JOURNAL would be pleased to hear from him again.

Let not "Novice" be discouraged in the good work he is doing, even if patent hive men and others who are trying to humbug the bee-keeping community, do fly into a passion and use discourteous language because their tricks are exposed.

And "Gallup"—how could we do without his practical, strong, common-sense articles; deducted from his close observations and reasonings. Though an old hand at the "bee business" he is far from being an "old fogy" and don't intend to be a whit behind any new ideas and progress in his favorite occupation.

Thanks to friend Adair for his many excellent contributions. I hope that he will continue to give us the results of his scientific and theoretical investigations, and the practical working of his "new ideas."

There are many other names I might

mention which I would like to see continued upon the list of contributors, in fact I would like to have them all continued.—Some who used to write very acceptably do not write as often now as I would like,—such as Grimm, Argo, Price, Nesbit, the Davies, etc., etc., with my quondam friend Thomas, who, although he may not be able to convince us that he still has the “best hive in America,” I know he can write interesting and instructive articles on other subjects. His idea about that bee disease, in my opinion, is about the best that has been advanced.

And will not our sister bee-keepers let us hear from them oftener? What say you Miss Cyula Linswick, Miss Ella Dunlap, Miss Katie Grimm, Mrs. Harrison, and other sister bee-keepers? I can assure Miss Linswick that her delightful sketches are eagerly read and admired by one, and I believe by all the readers of the JOURNAL. When we have young ladies visiting us and I wish to interest them in bee-keeping, which I am sure to do, I read to them Miss Cyula's narrative of her experiences and Miss Katie Grimm's account of her great honey harvest.

Last but by no means least is the contributions of selections and translations from foreign bee journals, which I hope to see continued.

It requires variety in a paper devoted to such a specialty as bee-keeping to make it interesting, and that the numerous correspondents of the AMERICAN BEE JOURNAL have given it, and that is one cause of the strong attachment felt for it by its subscribers.

THADDEUS SMITH.

Bees Eating Grapes.

As I have cultivated bees in a part of France where grapes are the main crop, near the hills of Burgundy, celebrated for the wine produced by the culture of the sugared pineau, a grape richer in sugar than all the American kinds, I think I can bring some light on the discussion existing between Prof. Riley and my friend Kruschke.

There has been considerable discussion between the wine growers and the bee-keepers, in the above named district, and it is, to say, very well established that bees are unable to cut the skin of grapes.

In order to ascertain the fact the most juicy and sugared grapes, pears, sweet cherries, plums, apricots, etc., were put inside the hives; never have the bees attacked them, if they were not previously scratched. The ex-

periment was repeatedly made, it was discovered also that the first cutting was made by a kind of wasp, or by birds, or caused by the rain falling when the fruit was ripe. (See the seventeen years of the French journal *L'Apiculteur*.)

In Italy the same experiments have led to the same result.

It is therefore unjust to accuse the bees of the mischief. It is to be regretted to see such distinguished men, as Prof. Riley, bring forward the accusation, and some bee-writers sustain it, who, with a more careful observation would have arrived at altogether different conclusions.

It is not the first time that scientists have received lessons from practical bee-keepers. At the end of the last century Shirack had to contend with the scientists of his time, to prove that bees can raise queens from worker eggs.

Later, Dzierzon has proclaimed the parthenogenesis, in spite of the European scientists, whose ideas were knocked down by the discovery.

Later, Langlois, a french scientist, made an ass of himself in advancing that the cells and the food were able to change the sex of bees.

Last year, Prof. Agassiz was laughed at by the bee-keeper, for his idea on the building of the cells by the bees.

It happens too often for the progress of science that, in order to get fame, some writers bring forward as fixed facts, some ideas altogether contradicted by experience. Some years ago Prof. Watro amused the readers of the *American Bee Journal* by his theory of procreation in bees. To-day it is Mr. Adair who has inherited that situation, with his balanced colonies, his wings which act as lungs, and probably as nose and ears. Fortunately these hazarded assertions are too baseless to obtain credit among the bee-keepers. They show how great is the diversity of minds in the human race.

CH. DADANT.

Hamilton, Ill.

East Friesland, a province of Holland, containing 1200 square miles, maintains on an average, 2000 colonies of bees per square mile.

How to Extract Honey.

With a good extractor, one that will hold the comb firm, you can extract honey from new comb without breaking it; and—in addition to obtaining enough from a few hives to pay for a machine—extracting it will leave the bees in a much better condition.

Take out the outside combs in which there is no brood. You can not extract old, *thick* honey from combs in which there is brood *unsealed*, without throwing out more or less brood and it is best to let such combs alone. If the day is warm extract the honey at once. If the weather is cold, put them in an empty hive and carry them into a warm room, where they should be left a few hours, or until the comb will bend slightly without breaking, before extracting the honey.

Townley, Mich. J. H. TOWNLEY.

Bees vs. Fruit—A few Facts.

"ARGUS" TO PROF. RILEY.

With all due respect for Mr. Riley as an entomologist, allow me to say that, in my humble opinion, he has signally failed to justify himself in recommending the destruction of bees, even in extreme cases. But to the question, "Do bees injure fruit?" Mr. Riley says they do, and also says, "I never fear the truth and *never write anything* that I am not *ready* and *competent* to defend." Now, all this may be true, Mr. Editor; but we must make considerable allowance for youthful zeal. I find, as I grow older, I change my mind on many things; and I even dare to think as Mr. R. gains in years and experience he, too, may change his opinions, not only upon this subject but upon others, his ideas on the grape vine aphid included.

Permit me now to look briefly at the proof that he offers, to establish what he pleases to call the truth. The first is a letter from I. W. Penn, who says:—"I like fruit, large and small, to become thoroughly ripe; but from early to late in the season the place is infested with myriads of bees belonging to persons that fail to provide food for them. * * The choicest peaches, the sweetest pears and the most delicious grapes are hollowed out by the starved and ravenous insects." Looking at this testimony your readers would be apt to come to the conclusion, if they had never seen bees, that they had a bill like a bird or teeth and stomach like a squirrel. Look at the statement "the fruit was hollowed out;" and again, "I and others of the family were severely stung by the bees lurking within." Now, would this kind of evidence satisfy a competent jury? True, it might be called circumstantial evidence, but not enough to

convict and punish with death. Now, would this species of reasoning satisfy Mr. Riley on any other subject? Would he not require a more careful examination before jumping to a conclusion? If not, I do not think he is the fortunate possessor of the mantle of Father Walch.

The next witness on the stand is J. H. Werlandy, who says he was so annoyed by his neighbor's bees that he lost his entire peach crop, which was rendered unfit for market by their injuries. This witness might just as well be dismissed without comment, seeing there is not one single proof offered. Now let us hear the testimony of Mr. Riley himself:—"This objection to bees under certain circumstances comes from the real and direct injury they do to the fruit." This is merely gratuitous assumption. Again, "The mouth of the honey bee is fitted both for lapping and biting." Well, for the sake of the argument, suppose it is; how far would this testimony go to convince a jury, if Mr. Riley was brought up on a similar charge? It will doubtless be very clearly seen by every intelligent and candid reader that the statements given are very far from being sufficient to establish the fact that bees injure fruit.

Now let us go back to Mr. Penn's orchard and see if we can't find some other cause for the destruction of his fruit. "Here are also some ornamental trees and evergreens, including an Arborvitae hedge to shelter the small birds, which became very tame under the kind of treatment they received." I ask Mr. Penn what he thinks the birds live upon? Not all insects I can assure him; and, to convince himself of this, let him go into his orchard by the peep of day, and perhaps he will find the birds as well as the bees enjoying themselves. I have been longer in fruit than bee culture, and I know the birds have had many a dainty meal of the best of my grapes, cherries and strawberries; and I also know that at times they have had the lion's share. Mr. Penn says he is kind to the birds, doubtless convinced that they are his friends. A few years ago a fierce controversy was waged upon the bird question; some thought they did more harm than good; but mercy and truth at last prevailed, and now they enjoy their full liberty both in the field and orchard, for the good they do. Again, Mr. Penn says, "My loss last year in money value was considerable." This is only one side of the money question; he has failed to give the bees any credit; but I hope in time he will learn better, and, as R. Holland truly remarks, "Any one who goes through the world with his eyes open, is sure to find out something that even professional naturalists did not know before."

Some seasons fruit "don't set good." Why? I have in my mind at present a large

pear tree whose branches in the spring were white with bloom; but there came one of those heavy, dashing rain storms and washed out the pollen, and of course there was little or no fruit on the tree, except one branch, and that was loaded with fruit, for it hung under and was protected by the eaves of the house. If there had been plenty of bees in the neighborhood to have fertilized the rest of the tree, more fruit would have been the result. Providence never works without means; and it is admitted by all naturalists, and Mr. Riley himself will not deny it, that the bee is a means of not only giving us more fruit but a greater variety. Art in this has done much, but Nature more. With this view of the matter the means that Mr. Riley has recommended for the destruction of bees will not justify the end; for it has been observed, from the days of Aristotle to the present time, that where there is an abundance of bees there is an abundance of fruit; therefore the more fruit the more money. These facts are so well established no proof is required.

But there is something else, of a serious nature. The flight of a bee is ascertained to be about a mile in two minutes. Now, the bees that fill their sacs (or first stomachs) at Mr. Riley's poison dish will not all die there, but thousands will fly home and deposit their load in the hive. If this honey is used at home or taken to market, who will be responsible for the consequences? I think friend Riley has made a great blunder, and I would counsel him to be careful where he buys his honey, for if he has any facts to communicate upon this important subject, the public cannot well spare him at present. In conclusion I would ask him if he ever kept bees and how he managed to keep them at home?—*Rural New Yorker*.

For the American Bee Journal.
A Prolific Mother.

In the queen bee, the mother of the colony of bees, we have an abundant breeder, amounting to many thousands each year of her life. All the bees in the old colony are her progeny until three weeks after the issue of the last swarm from the hive. As the old queen issues with the first swarm, all the bees in that colony for the whole season are produced by her. Likewise all the bees which constitute the after-swarm, sometimes amounting to three or more swarms. The first swarm with which the old queen issues sometimes gives a new swarm. That is her progeny.

We have many thousands in the first swarm, many thousands in the after-swarm, many thousands in the first swarm produced by the old queen after her establishment with the first swarm in her new home, and many arising from her

brood left in the old hive at the time of her issue with the first swarm. I will not name numbers, as there are great differences in the strength of different colonies, and it would be only guessing; this one can do as well as another. It is enough for our present purpose to understand that it is a sufficient force, with the late additions made by the young queens, to carry two, three, four or five colonies through the winter. But the expectation of much more than this may be considered a vain hope. By following this course from year to year with small hives, a large number of colonies may be secured. But little surplus honey is secured, and the point is soon reached where the field will not supply food for their support, and large numbers, sometimes all of them, winter-kill or starve to death.

I think it must be apparent to every reasonable, reflecting man that if the labor can all be expended and its profit all secured in one hive, and all but that part of it necessary for winter stores be secured in surplus boxes; instead of being very trifling in amount, from one-half to three-fourths of it may be secured in surplus boxes in the best shape for market. Of this I have no doubt, having secured from one hive in one year one hundred and forty pounds, in another year one hundred and forty-five pounds, and in another two hundred pounds. In other years less, varying from one to two hundred pounds.

In my operations with this hive, I have known no swarms to issue except from neglect to give the room furnished by the surplus boxes before the preparations for swarming had commenced, or from neglect to sufficiently guard from heat.

Last November I removed from the vicinity of Albany to Woodstock, Vt., probably to close my days. My bees I left in care of my son, who informs me by letter that but one colony has died.

JASPER HAZEN.

For the American Bee Journal.
A New Subject (?)

The subject in regard to the mortality of bees, during the last few years has been discussed in nearly every number of our journals, ever since that fatal winter.

I would now like to ask: Have we finally discovered the true cause? Can we prevent it in the future? Quinby, Dadant, "Novice,"—in fact, nearly every bee-keeper of importance in the land, have given their experiences and opinions. One says it is on account of the long continued cold; another lays the fault to bad honey; another to bad ventilation, and dampness; another calls it an epidemic.

If these questions, as to the cause, were

put to me, in conclusion at the end I would probably reply "yes"; for there seems to be some truth in each statement. I think many have come to the conclusion, after perusing the various reports, that if we keep our bees in future in a place where the temperature will average forty to forty-five degrees, and where the dampness will not accumulate, and where the bees will be kept dark and quiet, there is but little danger of loosing them by dysentery.

The loss of *our* bees, winter before last was the cause I have no doubt of too cold winter quarters. We kept our bees last winter in a clamp made similar to one described in the AMERICAN BEE JOURNAL, Vol. ix, No. 2, page 38, by Chas. D. Hibbard. We, however, made some improvements by packing one foot of straw against the ground walls, and also on the bottom. We turned the bottom boards of hives upside down and set the hives on the four inch cleats that are nailed on the bottom of the bottom boards, thus giving them four inches open space on two sides for ventilation. We put them two deep and covered them with two feet of straw. The covering of the clamp consisted of one foot of straw upon which we threw about one foot of dirt. Next time however, we will put on even more to make sure.

We put in sixty-one colonies, in a room eleven by sixteen feet, centre of roof ten feet from bottom. Could put in about twice as many.

In this nest of straw as it were, they kept up a temperature ranging from thirty-five to fifty degrees—forty-five being about the average. They came out effected a little with dysentery; those that set in the upper tier were generally less effected than those on the bottom; and as some of the frames were a little mouldy, we came to the conclusion that there was too much dampness. Three were found dead, four have since died. The death of a couple might be laid to the fact that they were but few in numbers, and these were mostly old bees. If there be any truth in the young bee theory, the more we know about it, the better. Another fact came to my notice that might assist in verifying the young bee theory, it is this;—I made three stands in August, two were supplied with capped queen cells, the other had an old queen, these are all living though they were weak in numbers in the fall, but as I fed them well with sugar syrup, they kept on breeding longer than others not fed, neither were they badly effected with dysentery.

Make it then a rule to give bees the conditions above named, viz: warmth, dryness, plenty of ventilation, feed them *all* in the fall, keep them in perfect darkness, disturb them as little as possible, and I think dysentery, or "that bee disease," will be extinct.

Berlin, Wis.

J. D. KRUSCHKE.

For the American Bee Journal. Apiculture in Kansas.

MR. EDITOR:—This winter has not been a very favorable one on bees in this State. It has been a winter, like all its predecessors, peculiar in many respects. The thermometer in this vicinity has never once been below zero during the winter months just past. There has been a vast amount of freezing and thawing, with protracted spells of weather during which the air was in a very humid condition. In noticing my bees lately, I saw more signs of mouldy combs than any preceding winter. Such is especially the case with those wintered on their summer stands. Why combs become so very mouldy in some hives while in others the combs are perfectly bright, where all probabilities would lead one to suspect a like result, has always been to me a little mysterious; but the ventilation, quantity and age of bees, and quantity of comb in the hive, are conditions which if properly understood would solve the problem to a great extent, no doubt.

The Legislature of this State passed an act approved March 6th, 1873, relating to the collection of statistics of the industries of the State by assessors. Apicultural statistics were collected under the following heads, viz.: "Number of stands of bees, native and Italian, to be stated separately, kind of hives used, number of pounds of honey produced, and the source from which the greatest yield of honey is gathered." The secretary of our State Board of Agriculture in his report for the year 1873—which was laid before the Legislature a short time before its adjournment—gives the following, which is the aggregate synopsis taken from the statistics relating to bee culture, and which were taken for the first day of March, 1873:—

Number of stands of native bees,	13,245
" " " " Italian "	1,640
" " pounds " honey,	135,384
" " " " wax,	3,686

The secretary also reports the following: "According to the census returns of 1860, the number of pounds of wax returned was 1,181; in 1870, 2,208; in 1872, 3,686. The number of pounds of honey returned in 1860 was 16,944; in 1870, 110,827; in 1872, 135,384. In 1873, 14,885 colonies of bees are reported, 13,245 of which are native. . . . Allen County reports 'sun-flowers and weeds and flowers generally' to be the best source of honey in that county. Twelve counties report buckwheat; three counties report linden. Linden, sumac, white elder and smart-weed, appear in most of the reports. . . . Buckwheat, clover and basswood, are reported as giving the greatest yield of honey."

Perhaps the report by counties as given

by the secretary would give the reader some idea of where the best portions of the State for bee-keeping are found, but we have not deemed this of sufficient importance to the general reader to copy it from the report.

M. A. O'NEIL.

Black Jack, Kan.

For the American Bee Journal. **My Experience.**

Mr. Adair, in his article on the wings of bees, holds out the idea that to cut a queen's wing is like taking away part of a man's lungs. I will give you my experience during the last year with stocks of bees with queens' wings clipped—some a little off, some half off, and some more than half off, just as it would happen in giving a clip as they would run on the comb.

I moved twenty-four of my best stocks to a large poplar grove (*liriodendron tulipifera*) on the 17th day of last May. They were in two-story Langstroth hives, twenty frames, ten by seventeen inches, and by June 5th they were crowded and began to swarm. By the 13th I had to take 1263 pounds of honey from them with the machine, except 161 pounds that was in boxes. I was careful to remove all queen cells, but in about eight days they were swarming again, sending out enormous swarms, so that on the 24th I had to take 1440 pounds more honey with the machine. By this time I never had stocks so strong in numbers. Now if clipped queens do that way I say "clipp em" every time—Gen. Adair to the contrary notwithstanding—for had not these queens' wings been clipped, I perhaps would have lost half of the bees, for on the day before I went to take the last honey there were eight swarms out. The owner of the lot where the bees were, knew nothing about taking care of bees. I had them so arranged that the queens could crawl back into the hives so of course the swarms would go back themselves. Now if any one knows of queens being injured by clipping let us hear from them.

I then moved those bees to a linwood grove on the 26th (except two stocks that were so crowded that they smothered on the way). The weather set in very wet and linwood bloom was worth but little, so that I only got 850 pounds of honey from that source. Eight of the best of the twenty-four hives had on three boxes each (that would hold about sixteen pounds each) from May 17 until June 13, and only had 161 pounds of honey, while the other sixteen hives gave 1102 pounds of honey, being 69 pounds each, while the others only gave 20 pounds in the comb, each, making a difference of only 49 pounds each in favor of *stung* honey.

I have now one hundred and twenty-two stocks in the bee-house. I gave them in the fall about 1100 pounds of "A" coffee sugar, made into syrup by putting one pound of water to two pounds of sugar and let it boil a few minutes, and feed so that the bees and honey in each hive would weigh about twenty pounds, my bee-house is an upper story, inside sixteen by eighteen feet, eight feet high, double walls filled with saw-dust, the temperature has not been below thirty-nine degrees Fahrenheit this winter. In the last twenty-three days I have swept up eighteen pounds of dead bees—please tell me what is the matter. The summer entrance of the hives are open, upper story off, and the cover laid on the lower story. The hives are piled three to four hives high, in four rows, with room to walk in front of each row. The temperature has been up to fifty-five degrees, two or three times for perhaps a little over a day at a time, it generally stands at about forty-four degrees. The room is perfectly dark with ventilator eighteen by eighteen inches regulated at will. I enter the room through a trap door in the floor.

On April 15th my bees were reduced to ninety-two in number and several very weak. In the last ten days I have fed my bees two hundred and eight pounds of "A" coffee sugar, and if this cold weather continues ten days longer, I will have to repeat the dose, which goes to show that the weight of the bees and honey in the fall should be more than twenty pounds for some winters. That has always been enough with me, heretofore.

Last spring I had bees in forty-four hives, which gave altogether a little over 4,000 pounds of honey. I have sold 3,600 pounds of it, at an average of twenty-three cents per pound. The balance we have used, except about 200 pounds of bass-wood honey, that was gathered in very wet weather, and has soured a little. This I will feed to a few hives when the weather gets warm, and observe the effect it will produce on them. P. W. McFATRIDGE.

Carthage, Ind.

The instinct of bees in the construction of their cells has always been an object of wonder to those who are capable of appreciating it. Every cell has straight lines and sharp corners; but never does any cell present its sharp corner to its neighbor's cell—a soft even side to every neighbor's side. Each fit to each, firm to support, and yet soft in the contact. No interstices are left where filth might accumulate to annoy and defile. Thus let man meet man as they tread the crowded path of life. Always a side to your neighbor that is soft and strong. No sharp corner of selfishness that will pierce your brother.—Arnot.

American Bee Journal

W. F. CLARKE, EDITOR.

CHICAGO, MAY, 1874.

Clipping the Wings of Queens.

For some years past it has been customary with the best apiarians to clip the wings of queen bees as a precaution against swarming.

At the annual meeting of the North American Bee-keepers' Society, held at Louisville, Ky., in December last, doubts as to the propriety of this course were raised by Gen. D. L. Adair, one of the best apiculturists, both as to theory and practice on the continent. In a paper on the wings of the bee, it was contended that various important functions, breathing included, were performed by these organs, and it was argued that they could not be mutilated without injury.

This paper having appeared in the reports of the Louisville meeting published in this and other journals, has naturally led to the matter being pretty freely debated among bee-keepers, "Novice" in his "Gleanings," has pronounced strongly against Gen. Adair's views, but failed to do him the justice of publishing the paper itself. Our last issue contained a very able reply from Gen. Adair, to "Novice's" criticisms.—The subject has also received attention in other quarters.

At the annual meeting of the North-Eastern Bee-keepers' Association, which met in Utica, N. Y., during the first week in February, this subject was very fully discussed and a number of the most experienced bee-keepers gave it as their decided opinion, that clipping a queen's wings does not injure her capacity for usefulness. Secretary Nellis had practised clipping five or six years, and observed no bad results. At the present time, he had more than forty queens with wings cut off, and considered them as servicable as others. Captain Hetherington, we believe the largest bee-keeper on this continent, also practised clipping. He sometimes had three and

four hundred clipped at once. Mr. Doolittle had done more than all the rest, for he had tested the capacity of a queen who not only had her wings but also a hind leg clipped off, and yet did effective duty for four years. The general weight of testimony was decidedly in favor of clipping. Mr. Quinby however, who proposed the question for discussion, was very reticent in regard to it, expressing no definite opinion, but merely testifying that he had known a case in which a swarm went out with a young queen, leaving the clipped queen in the hive. Other speakers incidentally admitted that clipped queens were apt to be superseded, the bees evidently regarding them as deformed or crippled.

We have never tried this practice, and are therefore liable to be considered incompetent to say anything against it. But we can at least be permitted to state why we have never tried it. One reason has been, that we object, on principle, to the unnecessary mutilation of the creatures domesticated by man. Docking horses' tails, clipping terriers' ears, ringing pigs' noses, picking the feathers off live geese, cutting off the combs of game cocks, and the like, are all of a piece with clipping the wings of queen bees. Another reason for our avoidance of the practice has been, that we are unable to see how it can be kept up without injury. If it is a wise and necessary thing to do, then it must be done to successive generations of queen bees. Now, though no serious evil may result from its being done once in a while, it must entail weakness if done continually. A woman, here and there, may, by accident, loose an arm without perceptible detriment to the race; but if every bride were deprived of an arm on or before her marriage, we are of opinion that the mutilation would tell disastrously upon coming generations of human beings. If General Adair should prove to be right, and the important functions he suggests are in reality performed by the queen's wing, then assuredly serious injuries must result from the mutilation.

Moreover, we are opposed to all unnecessary meddling and fussing with bees. There is a wise management and supervision of the busy little workers, which is man's part

in the production of honey, but beyond this it is impertinent interference and annoyance to disturb their wise economies. The swarming instinct may be checked, regulated, and watched over, but we do not believe it can ever be annihilated, or if it can be, it will be at the cost of such a change in the disposition of the bee, as will greatly lessen its value to man as a gatherer and storer of honey.

Finally, we believe the All-wise Creator made no mistake in giving the queen-bee wings, and that it is, on the whole, best she should be permitted to retain them. One of the speakers at Utica said he began the clipping business by clipping off one of the four wings. Then the queen went with the swarm. So he took to clipping off "every wing entirely." Another said, "Queens cannot do anything with their wings but go through the air. Their business is in the hive; wings are of no use there." It is astonishing to see with what cool presumption some people constitute themselves advisers extraordinary to Infinite Wisdom, and proceed to carry out improvements in the Creator's plans. The queen-bee had wings when the Lord God surveyed his finished works, and pronounced them good. An inspection of them now would not result in the denial of wings to the royal insect, or in any other improvement whatsoever, seeing that all the Divine works are, like their glorious Maker, perfect. The Creator's fiat is of more weight by far than the creature's fancy, and we are content, in our bee-keeping management, to conform to all the Divinely-established laws of bee-life, instead of trying to change, or even presuming to suspend them.

Why don't Farmers keep Bees?

Mr. Quinby, of St. Johnsville, N. Y., a high authority on everything pertaining to bee-keeping, discussed the above question in a paper read before the North-Eastern Bee-keepers' Association at its recent annual meeting. He assigns four reasons for the neglect of bee-keeping on the part of farmers. 1st. They don't know how. 2nd. They doubt if it will pay. 3rd. They have had such poor success in wintering bees. 4th. They are afraid of being stung.

To these reasons, quite sufficient in themselves to account for the fact that very few farmers keep bees, we would add another—namely, want of enterprise. There is a quality for which successful men of business are noted which is very scarce among farmers, and which we call "enterprise." It leads to the trial of new and improved methods; to the making of ventures here and there on the principle, "Nothing venture, nothing win;" to an intelligent scrutiny of things generally; and to energetic action in any direction that seems to promise adequate reward for diligent effort.

For some cause or other, this quality is lacking in the great majority of farmers. Were it not so, there would be more manuring and better tillage of land; fewer bars and more gates; some display of taste about rural homes; a general adoption of improved stock; carefully kept farm accounts; and many other things that are as rarely found around country homesteads as hives of bees.

Enterprise is the result of education, and of that sharpening of wits which comes with the association of minds and the friction of ideas in the social and business contracts of life. Agricultural colleges for farmers' sons, and for any who contemplate rural industry; the circulation of agricultural periodicals and books; more visiting and travel on the part of farmers and their families; the establishment and energetic working of farmers' clubs; and such like means, will tend to cure an evil whose presence is indicated all around us in bad farming, woe-begone looking homes, tumble-down fences, ill-bred stock, absence of gardens, and last, but not least, neglect of bee-keeping.

THE ILLUSTRATED JOURNAL.

As a specimen of typography this magazine is deserving of all the praise that has been bestowed upon it by the Press of the country. All the engravings are, without exception, of a high degree of merit, both as respects the subject and the execution. The literary department is well sustained. The number is filled with interesting reading of permanent value. A volume of this beautiful journal will be a source of pleasure to every possessor of it. Published by the American Publishing Company, Room 27, Tribune Building, Chicago, for only \$2.50 a year.

QUESTIONS AND ANSWERS.

CONDUCTED BY CH. DADANT.

QUESTION.

In Vol. ix, No. 5, page 100, of the AMERICAN BEE JOURNAL in an article from C. P. D. that no queen can occupy more than 80,000 to 85,000 inches of brood at one time. J. B. R. Aberville, Pa.

ANSWER.

There is a *lapsus plume* or typographical error, it is not 80,000 inches, but 80,000 cells of brood.

QUESTIONS.

1st. I have four swarms. One I want to transfer to a Langstroth hive, I would like to know how to transfer them.

2nd. Give me some recipes for bee stings, and tell me where I can procure bee gloves and a good smoker. Mrs. W. M. Elyria, O.

ANSWERS.

The best time for transferring bees is April and May. Choose a warm day; send some puffs of smoke in the hive to be transferred and remove it, putting a decoy hive in its place, carry the hive a few yards from the apiary, invert it and put upon it a box or empty hive, as nearly as possible of the same width, wrap them up with a cotton cloth to prevent the bees from running outside, while drumming the bees in the empty box.

The drumming is done with two sticks of wood and should last from fifteen to twenty minutes. It is not necessary to drum all the time, but at intervals. When only a few bees remain in the combs, remove the box, in which the swarm has ascended, and put it in place of the decoy hive. The bees that are hovering about will enter it. Take care not to shake or jar it, for the bees would fall on the ground.

Bring the hive, deprived of its bees, in a room; with a long knife loosen the combs from the sides of the box, and pry off one side with chisel and hammer. If there are sticks across it, remove or cut them.

You should have prepared beforehand some No. 16 wire, cut in pieces half an inch longer than the height of the frames, in which you intend to transfer. The wires are bent at right angles, three-eighths of an inch from both ends. With an awl bore a small hole in the edge of the upper part of the frame, three or four inches from the end; then, with a light hammer drive in the end of one of the wires; the opposite end is driven in the lower part of the frame; put two or three wires at equal distances. Then lay the frame upon the table, with wires under. You sever the first comb from the hive; cut it off the exact measure; put it, or part of it, in the frame, so as to fill it, you fasten two or three wires to hold the combs in place, where they will remain straight and firm.

To fix the small bits of combs, put across the wires some stiff straw or dry weeds to make a kind of grate which will hold the combs firmly.

Take care to have the comb in the same way that they were in the hive. Do not put drone comb in the frames, and when you put the frames in the hive be careful to put all the brood combs together.

The vacant space in the hive should be filled with empty frames, or better, with worker combs fastened in frames, if you can get some. The proper place for drone comb is in the surplus box if you have an extractor.

Do not put the frames in the hive as soon as the combs are fastened in them, but put them somewhere to drain; for the less running honey you have in the hive the less will be the danger of robbers. When all the frames are placed, shut up the hive and bring it on the stand where the transferred hive stood. Remove carefully the box containing the bees, put the frame hive in its place, spread a cloth in front of it, and shake the bees on this cloth. As soon as they have nearly all entered, contract the entrance to help the bees in repelling the robbers.

Six or eight days after you should visit all the frames, one after another, and remove the wires with a knife.

Some bee-keepers in transferring use twine, some employ sticks of wood. I have tried both, but I find wire greatly superior. Do not be alarmed at the *immensity* of the work, but try it and you will succeed. The transferring is the work best adapted to familiarize the beginner with the bees and the building of comb.

2. Several recipes are given to remove the pain and prevent the swelling of bee stings. As both these effect very capriciously, sometimes the pain and swelling being immense, while at other times they are a mere nothing, all the remedies applied have in turn won and lost the reputation of being good for bee stings, while the truth is that not one is altogether effectual. The small drop of venom being deposited *under the skin*, no drug applied on the skin can penetrate deep enough to neutralize it. Yet when one fears that the subsequent effects will prove fatal, the application of compresses soaked in cold water are to be resorted to in order to remove the subsequent inflammation.

It is also an obvious fact that the human body can get used to the venom of bees, and that the more you are stung the less will be the pain and swelling of the sting. But as this last remedy is not very pleasing, I advise the beginners to avoid the sting as much as possible, and they can obtain this result in learning to handle bees.

First. Use a veil of black material put upon a round hat with a large rim, a common

laborer's summer hat is very good for that purpose. The veil passed around the rim has a rubber string which ties it against the neck.

Second. Use smoke to prevent the anger of the bees. For a smoker nothing is better than a small lump of white rotten wood perfectly dry, or a roll of linen or cotton rags interspersed with some sprigs of dry grass.

I have seen in Italy and in France several kinds of bellows and smokers; one which seemed to me very easy to manage was a tube of tin a little more than an inch in diameter and about eight inches long. This tube was filled with a roll of linen or cotton rags which burned slowly. To extinguish it the cotton roll was drawn inside of the tube and the tube was driven in the ground.

If bees are unusually cross, go before the entrance of the hive and send in two or three puffs of smoke; remove the cover of the hive, raise carefully the honey board, sending some smoke inside the hive. Remove the honey board, send a little smoke between the combs, and your bees will be in good disposition for the time of your operation. As soon as you see some bees running to and fro on the tops of the frames, quiet them with a little smoke.

Remember that the handling of bees is more easy between ten in the morning and three in the afternoon—in a clear than in a cloudy day—in spring and summer than in fall, and with Italians, pure Italians, than with black, gray or hybrid bees.

As to gloves, I cannot advise their use, for they are inconvenient. It is better to leave them alone, and to learn to handle bees.

QUESTION.

I prefer artificial swarming. How should I start the nuclei?

ANSWER.

It is impossible to answer your question. That will depend on the force of your colonies and the season. Here in Hamilton, Hancock Co., we start the first nuclei in May, but some years we have to defer it till the first of June.

QUESTION.

Are the bees, placed on a lawn, disturbed by the noise of a mower close to their hives, and will the moving of their stands to mow the grass have a bad effect? C. E. S.

Buffalo, N. Y.

ANSWER.

The noise of the mower will not effect the bees if it does not strike their hive. But the man would be exposed to their stings. To remove the bees at every mowing would be a big job if the colonies are numerous; and unless closed up before removing the hives the bees would be greatly disturbed. I advise to close up the hive before sunrise, and to mow immediately, so as to keep the bees closed as little as possible, taking care to open the entrances before the heat of the day.

To Beginners in Apiculture.

BY PROF. A. J. COOK.

ARTICLE II.

During the coming month—from the last of April to the last of May—our little models of industry and thrift will need but little care and but little attention, though they had best receive a great deal of the latter. How often we hear something like the following from our lady friends: "How I wish the same luck would bless me that attends Mrs. M. in the care of house-plants;" and as often we feel like saying: Undoubtedly it would, my dear madam, did you love them as well and care for them as assiduously. It is loving care, not luck, that keeps the noxious dust-particles and scale-insects from the houses, and makes the ruinous attempts of the little aphids and wee spider futile. So, too, with our bees. He who loves to watch, closely observe, aye, and tenderly fondle, will be the one whom "luck" will bless. So I say commence at once those frequent attentions which will acquaint you with the wondrous life-history of your little help-meets, make you to understand their needs, and so cultivate a reciprocal acquaintance that your closest scrutiny, so far from disquieting them, will be rewarded by the discovery of all their usual operations. The wax secreters will yield their palets, the little cell architects will rear their marvellous structures, the labor-worn gatherers will empty their stomachs, the staid old queen continue her egg-laying, and the old drones—those bummers of the hive—will stare at you. And all this before your very eyes. If you wish the best success, you must open the hives and make very frequent examinations, and thus very soon you and the bees will become mutually fearless, and you can abandon the sooner those cumbersome appendages, your bee gloves. But in all this, strive never to jar the bees, nor make a quick motion.

WITHIN THE HIVE.

Now, on the warm, pleasant days—you will open the hives on no other—what will you expect to see as you peer into the secrets of the hive's interior? First, if you have followed instructions, you will find almost every card of comb literally covered with bees; and if you examine closely enough, you may see the old queen herself. You will know her by her very long body, looking as though it needed a prop. Trouble not at its length, for from the queen's abdomen are to come those millions of eggs, the very germs of the apiarist's success—not now, but in a few weeks. You will also see the fat, corpulent drones, shorter than the queen, but larger than either queen or workers. Don't grumble at the plump, lazy gentry, for, unlike their

prototypes among us, they have their use in the economy of *their* society.

You next examine the comb. You discover that some cells are much larger than others. In these the drones are reared, while in the smaller cells the queen only places worker eggs, from which only workers will develop. Bending closely to the comb, in your eagerness to see all, you behold the long, cylindrical, slightly curved eggs, fastened to the very bottom of the smaller cells, for so early—in April—no drone eggs are to be seen. At the top of the cards of comb you note considerable capped honey, and so sharp has become your observation that you even observe that the caps are light colored, and slightly concave. Lower down on the cards you see patches of small cells capped over, but the caps are darker and convex. While looking at one of these cells, you behold with utter astonishment the emergence of a young bee all fresh and wrinkled. This, then, is the brood, and you are in raptures to see the large amount of it, and lisp something about the profit of early stimulative feeding.

Along the last of May, perhaps not till June, though the experience has been mine even the first week in May, you behold drone brood, in the large cells of course, and here the caps are not only convex, but even project, so that drone brood is a marked feature of the hive. Happy are you if you find very little of this. If there is much, cut it out and cast it away, for more than a very few drones are worse than useless. Now you must watch very closely, for soon there will be built from the face or edge of the comb great queen cells looking like wax thimbles. Now let your sharpened observation have its perfect work. Note which of your colonies is strongest in bees and brood, and cut all drone brood and queen cells from the other hives. Here is your opportunity to select in breeding bees.

TO REAR QUEENS.

Now watch for queen cells in your best colony, and so soon as you see them, with a creamy looking substance at the bottom, or at the risk of the bees swarming you can wait for them to be capped over, take one good one on each of four frames, or if this is not possible, cut out of the comb containing the cell a wedge-shaped piece, widest above, and place in an opening cut in other combs, being very careful not to press or injure the cell. And thus with four frames each containing a capped queen cell you can proceed. Now if you have a hive with frames a foot square, that will take twelve, divide the hive into four separate apartments, entirely close, by inserting division boards, and cover each apartment with a separate quilt. Place this

on a bottom board so cut that the bees can pass out of and into each apartment from different sides of the hive—to the end apartments from the ends, to the middle from the sides. Now take the frames with the queen cells, also well covered with bees, but in no case containing the queen; and place one in each apartment. Go to the other hives and take four frames with much brood and some honey, and also covered with bees. Put one of these into each of the apartments. The old bees will return to the old hives, while the young bees will not quarrel, and will be sufficient in numbers to cover and care for the brood. Thus in about sixteen days you will probably have four good queens, and will be prepared for artificial swarming, which I will describe in good time. Of course you will insert empty frames in the old hives, four in each, and destroy all the queen cells except the four you used. With the added room the old colonies will not probably build more queen cells. If they do build more, destroy them.

Be very careful that the bees in your nucleus hives cannot pass from one apartment to another under the quilts, else the first queen hatched will destroy all the others.

If before cutting out the queen cells the bees should swarm, you can hive them in another hive—which of course you have all ready—by shaking or brushing them into a box or basket, and emptying them on a board in front of the hive. In all such cases put at least one comb of brood in the new hive, for then they will scarce ever go off, but in this particular case it would be better to take from their old hive four frames containing the least brood, also four frames from the other hive containing brood—though in this case shake off all the bees—and give them to the new colony with four empty frames, and make the four nuclei in the old hive. The convenient form for nuclei is another recommendation in favor of the Gallup frame. Thus well started in queen raising, we will read the old JOURNAL, study our book, and by all means not forget to look very often at the bees, and wait for further instruction.

S. R. PECK, Newport, Ky., writes:—"The April number of the AMERICAN BEE JOURNAL contains an *Editorial* on the subject of *bee-stings* and their remedies, and concludes thus: "But we have discarded every other application since becoming acquainted with a *German* remedy lately introduced. A drop or two will remove all trace and effect of a sting in a very few minutes. It costs but a trifle per bottle, and a single bottle will last a bee-keeper for a life-time." Please inform us in the May number of the AMERICAN BEE JOURNAL where, and of whom, the remedy can be obtained, and oblige a subscriber."

Voices from among the Hives.

W. M. STEELY, California, Mo., writes:—"The black bees around here have all died during the past winter, except five colonies. I shall Italianize mine as soon as the weather will permit."

MRS. ELLEN S. TUPPER, Des Moines, Iowa, writes:—"My bees have wintered well. They have come out of the cellar in splendid condition. There will be a small fortune in bee-keeping this year."

W. S. IRISH, Norton Centre, Ohio, writes:—"The AMERICAN BEE JOURNAL is a welcome visitor, and I wait anxiously for each number. Long may it prosper and continue in its good work."

ABRAM BADGELOW, Georgina, Canada, writes:—"My bees are in splendid condition. I wintered them in the cellar under my dwelling-house. There was one hundred swarms, and I lost only two. I placed them on their summer stands March 18th. Last season I had about two tons of box honey."

H. W. S. writes:—"I think it would be well to call the attention of bee cultivators who also raise grapes and other fruit to the charge made by many *that bees depredate on fruit*, and to request them all to notice particularly the coming summer to ascertain the truth or falsehood of the charge. It would also be well to notice whether bees do any service in fructifying blossoms of fruit or vegetables. If many observers could publish the result of their observations it would be of great benefit. Fruit-raisers who have no bees are threatening to poison the bees, which they can easily do, and it will be very useful to convince them that the bees are their friends and not their enemies."

SAMUEL PORTER, West Ogden, Mich., writes:—"I have been engaged in practical bee-keeping for the last two years. In the spring of 1872 I transferred six swarms into the movable frame hive. I increased them to nineteen, and lost nine in the winter of 1873. I then bought three, which raised my number to thirteen. I increased the thirteen to twenty-seven last summer, and got two hundred pounds of surplus box honey. I think that is not so very bad for a beginner. Bees wintered well and are in splendid condition at this time. I am now feeding mine on corn and wheat flour mixed. They seem very fond of it. Take from two to three pounds per day."

CHAS. F. MUTH, Cincinnati, O., writes:—"Bees wintered well everywhere apparently. It is, therefore, no wonder that mine have done so well under their straw mats. At an examination on the first of March I found them all (thirty-four stands) in first rate condition. Only one (one of the strongest hives at that) had lost its queen, and had to be united with another. Twenty-nine stands had two sheets with brood. One hive had brood in three sheets; two in one sheet; and one hive had fresh laid eggs only. A few days ago I found a queen crawling on the roof. The hive she had come out of had two sheets with brood. It was not very strong, but would pass for spring. The queen died, and the bees had also to be united with another swarm. To sum the matter up—I do not believe that another lot of thirty-four hives of bees in our part of the country wintered better than mine did, whether they were wintered in-doors or not, or whether they had sugar syrup for winter stores or honey."

H. E. CURRY, Cincinnati, writes:—"Vegetation is very forward. A week's fine weather will bring everything out in leaf. Bees that went into winter quarters in any kind of condition have come through with *flying colors*. I have heard of but few losses, and those were no fault of the bees. We are expecting the apples to bloom the middle of April, and then our honey season commences. If the weather is favorable, there will be considerable honey gathered from the fruit blossoms. All we need is the honey, and for that we have only to wait."

D. M. HALL, Lima Centre, Wis., writes:—"I commenced the winter of 1872-3 with 14 stocks of black bees and 2 of Italians. They came out all right in the spring. I did not lose any through the winter, but as soon as I stood them on their summer stands the black bees commenced swarming out and leaving their hives. I examined them, but saw no reason why they should, as they had plenty of honey. I changed them to eleven (Kiddier) hives. But it did no good. They would swarm two or three together, till I had only six left, and some of them were very weak. My two Italian swarms went to work well. I increased my six to twenty-two, and Italianized them all. I kept them in the cellar under my kitchen last winter, and they have come out strong this spring, and do not show any signs of leaving the hive. They have gone to work with a vim, and every pleasant day they make the air ring with their music."

A BURNT CHILD from Georgia, writes:—"I have been perusing the AMERICAN BEE JOURNAL of the last year, and like it so much that I want to continue it, and send herein the needful. I did not like the recrimination which was so rife, and am glad to see it lessened. Another objection I have is the space occupied by the business routine of the meetings of societies. It is not of interest to nine out of ten to read who is president or secretary of this or that society. Let us have more honey and less comb. But the article by Dzierzon—page 220 of the January number—is worth the full yearly subscription. In the March number, "Why don't farmers keep bees?" I will in part answer. Because they see some trying to do so, first swindled by a patent hive vender out of four times the worth of the article; then buying a swarm of Italian bees, and finding the queen but two thirds the size of the representations of her on letter backs, and having her killed in a day or so by her followers, and thus losing enough to buy honey for years."

JAMES BOLIN, West Lodi, O., writes:—"Where the bees were properly cared for, they have wintered well, but where their owners trusted to "luck" in wintering, the loss, in some cases, has been quite severe, amounting, in one case that came to my knowledge, to four out of five, and in another to the entire stock. I put one hundred colonies in my bee-house Nov. 19th, and took them out March 2nd, and found them all right, but had the misfortune to lose one colony by starvation, with plenty of honey in the hive, during the severe cold weather that occurred the second week in March. The bees had clustered at the south side of the hive, which stood facing east, and the honey being at the north side the cold wind prevented their reaching it, so they perished. I have made the loss all right again, however, by putting the bees from a bee tree I found in the woods in the hive with the combs and honey left by the swarm that perished. Bees are working on rye flour, with a rush, whenever it is warm enough for them to be out of their hives."

M.D.D., Newburgh, N.Y., writes:—"I have a little to relate in the bee line, having just commenced the business by purchasing three hives of common bees, one of them without any honey, as I soon discovered. Of course they had to be fed or starve. I determined to feed candy.

Last fall a candy store in this city was overrun with honey-bees, so completely were they starved out here. I asked them what kind of candy they worked on, they showed me some made in bars called vanilla chocolate candy, that is candy made very soft and flavored with vanilla and covered with chocolate to keep it together. The bees would take every bit of the inside out and leave nothing but a mere shell of chocolate. I bought some and fed it to the bees, they seemed very fond of it, I also put some in sugar syrup and they were perfectly crazy for it. It appears to me to be just the thing with plain syrup making it taste almost as good as honey. Would not vanilla be a good thing to perfume the hive, to give them all one smell when uniting them etc., etc? Has any one tried it?

I want a bee feeder, and getting an idea from one of your correspondents about a tin can with end melted off, I am going to make one a little different. I will describe it thus: Tin can, ends off, over this tie factory muslin (outside), letting it down inside to near bottom, placed over the hole on top of the box. Then fill nearly full of syrup. But you may say it will run out too fast. Well, that can be easily obviated, put clean fine sand into the bottom, with syrup sufficient to regulate the flow, then you have a feeder, and a perfect filter also, costing less than two cents."

J. P. MOORE, Binghamton, N. Y., writes:—"I commenced the season of 1873 with seventeen stocks of bees, having lost four in the spring and sold one. Ten were in fair condition by the 20th of May; the other seven were much reduced, but by taking brood from the strong ones, I was able to build up five of the weak ones by the time honey commenced to yield. The other two I run for increase and surplus queens, and was able by feeding and using my four hives of empty comb to increase the two to eight full stocks and five half stocks or nuclei. Two of the nuclei died in the winter, and the other three are very weak (I prefer full stocks for winter), and raised ten surplus queens. The fifteen that the boxes were put on, were run entirely for box honey, without increase, as we have things so arranged now that when we get a hive filled with brood, in time to put on boxes, we can have them put all their surplus in boxes, if the queen is prolific, without attempting to swarm, and without the trouble of handling the brood. The product of the fifteen stands thus:—

By returns from honey shipped, 1864	
lbs. at an average of about 27½c.,	\$498.32
Honey sold at home, 130 lbs. @ 16c.,	\$19.30
Honey reserved for home use, 50 lbs.	\$8.00

Total..... \$525.52

Or an average of about 135 lbs. (\$35.00) per hive. Two of my neighbors have done quite as well, and perhaps better. Their average has not been quite as high on surplus, but they have more increase. Bees have wintered very nicely in this section, but the weather is quite cold now, and snow is on the ground."

WM. HOUTZ, Milton Centre, O., writes:—"My losses are heavy this spring. I say this spring, because I lost no bees until after the 4th of March. Since that date I have lost thirteen swarms, and am sure of losing more,

because the weather is so cold that they cannot increase any, and the clusters are so small that they will not live long enough to raise any brood. Out of thirty swarms put in winter quarters I think I will probably have ten left. How is that for improved hives? I visited a bee-keeper that used nothing but a box about twelve inches square and fourteen inches deep. He started into the winter with thirty-six swarms, and let them set on the summer bench without any protection at all, taking off the surplus box that sat loosely on top, and laid on a thickness of brown paper, and then laid boards tight on that, and he saved every one. I was surprised to see that he lost none, while I lost heavily. Yet I am more enthusiastic than ever this season. I am determined to make it a success in winter. We can all raise bees and get honey in the summer-time to our satisfaction, but winter—or ought I to say long-continued cold springs?—is the great and important question. Well, if I had worked last fall to the ideas that I had in view at that time, I would have been a good many stocks better off, but it got too cold before I commenced, consequently I could not handle the bees as I knew they should be."

FRANCIS M. WOODLAND, Fairfield, Ill., writes:—"Last spring and early summer the rains were so constant that the flowers secreted no honey, or at least the bees could gather none in this part of south-eastern Illinois. In consequence, the drones were killed off, and the bees swarmed out to leave the few drops of honey in their hives to the hatching brood. They then turned their attention to the grocery stores, and bushels of them were destroyed in the windows before they could be relieved by feeding. On the first of June they were weaker than at any time in the winter, and were all poor, besides, with no brood. The black bees did not recover, but the Italians soon rallied, and became so strong by August that they poured out in large swarms to such an extent that I had my hands full for more than two weeks. Then the Spanish needle bloomed and—I will only say that I believe Gallup and Hosmer both. Spanish needle bloom lasts ten to twelve days; does not yield as much as Lin, but is of a better quality, of the color of bright gold, and very thick. My bees are now in fine condition, with brood and stores, and peach buds are just opening. And now I wish to know if any one has a similar experience, as I do not remember to have seen anything written on the subject. It is this: when a fertile worker was "running a hive" and a card of brood and eggs were given them, I have never succeeded in procuring queen cells on that card at the time. But always, upon the introduction of a second card with eggs and brood, queen cells were at once started on it. *Query:* Were the old bees of the hive too old, and the young bees from the first card too young, to start queen cells before the eggs were too old? And did the bees hatched from the first card start the cells on the second? Who will answer?"

ABNER J. POPE writes:—"At the last meeting of the N. A. B. K. S., the following resolution was adopted: 'Resolved, That the Secretary make an official report, in pamphlet form, of the proceedings of our annual meetings, as soon as he has the funds to do so.' All that desire to become members and have the proceedings, should send immediately their names and postoffice address, and the annual membership fee of \$1.00, to Abner J. Pope, Sec'y, 170 Park Avenue, Indianapolis, Ind."

American Bee Journal

THOMAS G. NEWMAN, MANAGER.

TERMS OF SUBSCRIPTION.

Single subscriber, one year.....	\$2.00
Two subscribers, sent at the same time.....	3.50
Three subscribers, sent at the same time.....	5.00
Six subscribers, sent at the same time.....	9.00
Ten subscribers, sent at the same time.....	14.00
Twenty subscribers, sent at the same time.....	25.00

Send a postage stamp for a sample copy.

RATES OF ADVERTISING.

SOLID NONPARIEL MEASURE.

First insertion, per line.....	\$.30
Each subsequent insertion, per line.....	.15
One square, 10 lines or less, first insertion.....	2.00

Next page to Business Department and fourth and last page of cover, double rates.

Twelve lines of solid Nonpariel occupy one inch. One column contains 96 lines of solid Nonpariel.

Bills of regular Advertising payable quarterly, if inserted three months or more. If inserted for less than three months, payable monthly. Transient advertisements, cash in advance. We adhere strictly to our printed rates.

Address all communications and remittances to the Manager.

Not one letter in ten thousand is lost by mail if rightly directed.

Single copies of the AMERICAN BEE JOURNAL are worth 20 cents each.

Additional names to a club already formed may be sent at any time at the same club rate.

Upon the wrapper of every copy of the JOURNAL will be found the date at which subscriptions expire.

Any numbers that fail to reach subscribers by fault of mail, we are at all times ready to send, on application, free of charge.

Subscribers wishing to change their post-office address, should mention their *old* address, as well as the one to which they wish it changed.

JOURNALS are forwarded until an explicit order is received by the publishers for the discontinuance, and until payment of all arrearages is made as required by law.

Persons writing to this office should either write their Name, Post-office, County and State plainly, or else cut off the label from the wrapper of their paper and enclose it.

The postage on this paper is only twelve cents a year, if paid quarterly or yearly in advance at the post-office where received. We prepay postage to Canada, and require twelve cents extra.

When a subscriber sends money in payment for the AMERICAN BEE JOURNAL, he should state to what time he thinks it pays, so that we can compare it with our books, and thus prevent mistakes.

BINDING.—We have been requested to get sets bound for some of our subscribers, and have made arrangements to get the nine Vols. bound in three vols. for \$4.00, or the same in four vols. for \$5.00. Those who wish to avail themselves of these liberal terms must send their numbers by express to the Manager.

Honey Markets.

CHICAGO.—Choice white comb honey, 28 @30c; fair to good, 24@28c. Extracted, choice white, 14@16c; fair to good, 10@12c; strained, 8@10c.

CINCINNATI.—Quotations from Chas. F. Muth, 976 Central Ave.

Comb honey, 15@35c, according to the condition of the honey and the size of the box or frame. Extracted choice white clover honey, 16c. $\frac{3}{4}$ lb.

ST. LOUIS.—Quotations from W. G. Smith 419 North Main st.

The Honey marked is improving. A No. 1, box honey is scarce, and can be sold at good figures.

The spring is late and the bees are still confined to the hives. I have heard of very little mortality in the bees in Missouri, so far.—Common strained honey will sell well here now and at good figures. We quote:

Choice white comb, 25@29c; fair to good, 16@22c. Extracted choice white clover, 16@18c. Choice basswood honey, 14@16c; fair to good, extracted, 8@12c; strained, 6@10c.


NEW YORK.—Quotations from E. A. Walker, 135 Oakland st., Greenport, L. I.

White honey in small glass boxes, 25c; dark 15@20c. Strained honey, 8@12c. Cuban honey, \$1.00 $\frac{3}{4}$ gal. St. Domingo, and Mexican, 90@95 $\frac{3}{4}$ gal.

SAN FRANCISCO.—Quotations from Sterns and Smith, 423 Front st.

The season is about two weeks late. The prospect is very flattering for a big yield. We shall have no new honey until June. We quote:

Choice mountain honey, in comb, 22 $\frac{1}{2}$ @25c; common, 17@20c; strained, 10@12c, in 5 gallon cans. Valley honey, in comb, 12@17c; strained, 8@10c.

 We want several copies of No. 1, Vol. 2, of the AMERICAN BEE JOURNAL, and will pay 50 cents each for them. Who will send us some?

Every subscriber is requested to look at the date after his name on the wrapper label of this Number of the AMERICAN BEE JOURNAL, and if it is not correct send a postal card to this office, and tell us and we will make it right at once.

If you paste anything on a Postal Card, when you send to this office, we have to pay six cents postage on it. The law demands that there shall be nothing attached to it in any way, without paying double letter postage.

Some articles in this number are too personal. As the articles were of value, we concluded to publish them attended with this mild rebuke.

The Michigan Association of Bee-keepers will meet at Kalamazoo, on Wednesday next, May 6th.

Our subscribers in Europe, can now procure Postal Money Orders on Chicago. This plan of sending money is safe and economical.

Our New Advertisements.

As usual, fresh announcements are numerous this month, and our readers will appreciate a perusal of them.

Bees in the Langstroth Hives are announced by "C. F."

Books for Bee-Keepers may be obtained at this office.

Agents are offered profitable employment. See notice.

W. M. Steely has Queens at "Grange" prices, warranted.

Samples of *The New York Graphic* will be sent on application.

Novice calls attention to his Metal-corner Frames, Extractors, Hives, etc.

The Peabody Honey Extractor and its prices, with cut, is portrayed in good style.

The *Humane Journal* is published at \$1.00 a year, and humanitarians are invited to take it.

The Italian Bee Company, of Des Moines, announce their "Queenly" Programme, and Price List.

Those desiring Fancy Poultry and Eggs, are invited to read the Cottage Grove Hennerly advertisement.

H. A. King & Co. have an extended advertisement of their Hives, the addresses of manufacturers, etc.

The German Bee-Sting Cure can be obtained at this office. Sent by Express for \$1.00. It cannot be sent by mail. See notice.

Langstroth Hives, well made of good seasoned lumber, may be obtained of a manufacturer in this city through the manager of this paper.

Quinby invites you to send for his Price List of Bees and Supplies. His new Smoker can be seen at this office. It is ingenious and practical.

The *Scientific Farmer*, the finest and cheapest paper of its class in the world, will be sent for three months for 25 cents, or with its Chromo, "Just One," for 50 cents.

New Club Rates.

THE AMERICAN BEE JOURNAL will be sent one year with

Novice's Gleanings, for	- - - \$2.25
The Scientific Farmer, for	- - - 2.50
The National Bee Journal, for	3.00
The Bee Keepers' Magazine, for	3.00

A CHOICE OF SIX VOLUMES FOR \$5.—Having a few back volumes complete, and some lacking only one or two numbers each, we will give the purchaser the choice of six of such volumes for \$5.00, until they are disposed of. As only a few can be supplied, those who wish to avail themselves of this offer, should send for them at once.

We have received from H. A. King a chromo, which he gives with his publications, called, "The Pride of Winter." This is one of the sweetest faces we have ever seen and will be an ornament to any parlor.

Back Volumes.

Complete sets of back volumes are scarce. But few can be procured at any price. We have a set, consisting of the nine volumes (complete), which we offer for sale, either bound or unbound, for a reasonable sum. Many of the numbers we have paid fifty cents each for, to complete them.

We have several single volumes (complete) which we will send postpaid for \$2.00 each.

Several volumes, which lack only a single number of being complete, we will send postpaid for \$1.50 each.

Vol. 1, we can supply in cloth boards, postpaid, for \$1.25. Bound in paper covers, \$1.00, postage 10 cents. This volume is worth five times its price to any intelligent bee-keeper. It contains a full elucidation of scientific bee-keeping, including the best statement extant of the celebrated Dzierzon theory. These articles run through eight numbers, and are from the pen of the Baron of Berlepsch.

Beginners in bee-culture, who desire to read up in the literature of bee-keeping, are earnestly advised to obtain these back volumes. Many of our best apiarians say they would not sell their back volumes of the AMERICAN BEE JOURNAL for ten times the sum they cost, if they could not replace them. They are exceedingly valuable alike to beginners and more advanced apiarians.

We will pay 50 cents each for Nos. 7, 8 and 9, of Vol. iii. Also for No. 1 of Vol. vii. Send them to this office.

In Mr. Kruschke's article on page 78 in April number, in the last line but two, the word *catnip* should read "MILK-WEED."

Send stamp for a sample copy of THE SCIENTIFIC FARMER, an illustrated monthly for the Farm and Fireside. It will be sent from now to the end of the year 1874, with the AMERICAN BEE JOURNAL one year for \$2.50, or with the choice of Chromos—the Fruit Piece, or the new and lovely household gem, "Just One," for \$2.75; or with both Chromos, \$3.00.

Isaiah Cutler, of this city, gave us a call, and desired to describe a cheap smoker to our readers. He says it will cost but two cents and a little labor with a jack-knife. It consists of a short-stem pipe filled with tobacco, covered with a pine cap, and having attached a hollow stem through which the smoke can be blown as desired. Mr. C. has kept bees for sixty years, and is eighty-four years of age. If there is an older bee-keeper who still reads the AMERICAN BEE JOURNAL, Mr. C. would like to hear from him.

AGENTS WANTED.

PLEASANT and Profitable Employment for male or female, in every city of the Union. Active persons can double their small investment every day. Enclose stamp for particulars to

THOMAS G. NEWMAN,
Room 27, Tribune Building, Chicago.

NOVICE.

To those who care to know how he is getting along, at this 17th of April 1874, with his "tin corners," "pillow cases," "tea kettles," "manure heaps," etc., he would say with about his usual average of successes and reverses.

In the first place he has succeeded in losing about one half of his bees in wintering, ("tinkered 'em to death," "P. G." says,) and probably would have gone wild on a project for building a Green House, to be independent of the weather, and to be enabled to build up all strong before the honey harvest, were he not almost prevented from thinking about the matter, by the number of orders received daily for Extractors, Hives, Frames, &c.

He has succeeded in making a remarkably neat, light, Extractor, entirely of tin, cast iron, and steel, and for the sake of encouraging a Standard sized frame and hive, he offers it for \$9.00, then the dimensions are for a frame just 13 1/2 wide, by 11 1/2 deep outside measure; but where specially adapted to any other sized frame \$10.00.

Our Metal Corners are better made, and the machinery for making them has been much improved, as have also the frames and hives. Novice seriously began to fear in fact, that his reputation would suffer, if more care were not taken in the make of some of our wares, than what has been done in some cases heretofore; and we hope no one will feel backward in complaining if they feel so disposed. Please bear in mind:

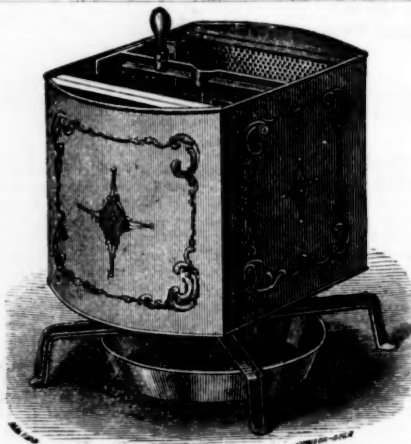
We always consider it an especial favor to have customers inform us by postal card whether goods are satisfactory; whether our mode of packing is efficient; time taken in transit; whether Express or Freight charges were reasonable, etc., etc.

Respectfully, A. I. ROOT & CO.

Medina, O.

\$500 REWARD

will be paid to any one who will inform us of a business that pays as well for the money invested, as being well with the J. L. & A. AUGER. Send 10 cts. for paper book. Address Auger Co., St. Louis, Mo.



THE PEABODY Honey Extractor.

All metal, simple in construction, compact, durable, easily turned, the best Machine in the market.

Reduced Prices!

One Extractor and one knife, \$12.00

Five Extractors and five knives, 50.00

Send for Illustrated Circular to

J. L. PEABODY & CO.,

may74m4

Normal, Ill.

German Bee-Sting Cure

To the Bee Fraternity:

From time immemorial, since man has coveted the sweet nectar gathered and stored by the busy bee, the bee-keeper has feared the poisonous effects resulting from the sting of the honey bee, while many have been deterred from entering the apicultural arena, not a few have abandoned the pursuit for a like cause, while the world at large are cognizant of the fact that the virus from a single bee-sting has resulted in death to persons who have been stung. With these facts in view it need hardly be stated that the bee keeper has sought by all means in his power to discover a remedy for the sting of a bee.

In the language of a recent editorial of the American Bee Journal, "Any alkali application is good; soda and blue-bags are recommended; a drop of honey, garden soil, spirits of hartshorn, alcohol and tincture of iodine are among the external applications. But, (continues the editor of the American Bee Journal,) *we have discarded every other application since becoming acquainted with a German remedy lately introduced. A drop or two will remove all trace and effect of a sting in a very few minutes. It costs but a trifle per bottle, and a single bottle will last a bee-keeper for a life-time.*"

With such evidence as this, before the reader, we hardly deem it necessary to say one word further in commendation of this remedy. If you would go among your bees without the fear of being stung, use the German Bee Sting Cure.

This preparation (impacted to the proprietor by a German friend, used by his ancestors for over an hundred years, and now for the first time prepared by scientific chemists,) after having been fully and thoroughly tested, is introduced to Apianians to supply a want long felt by the fraternity. Its efficacy is thorough and complete when the directions are complied with.

The German Bee Sting Cure is free from all poison, and may be successfully used for all insect bites.

Price \$1.00 per bottle. Sent only by Express.

MR. S. HAWLEY, Proprietor,
116 Miller St., Utica, N. Y.

For Sale also by

D. L. ADAIR, Hawesville, Ky.,

And at the office of the

AMERICAN BEE JOURNAL.

ITALIAN QUEENS.

We are prepared to furnish Queens this season from the best Stock in this country. We send out none but tested Queens, warranted pure and prolific. We have a few tested last fall that we will send as early as possible, (last of April or 1st. of May) at \$5 each. These are of special value to those who intend to rear Queens early. After June 1st. one queen, \$5; three, \$12; eight, \$30; thirty, \$100.

Address, ITALIAN BEE CO.,
Des Moines, Iowa.

may74tf

BEES! BEES!

For Sale in Langstroth hives. Warranted pure Italians; to be delivered early in spring. **Prices low.** Address, C. F. care of National Bee Journal, Des Moines, Iowa. may74m3

Bees and Supplies

will be furnished by

M. QUINBY,

St. Johnsville, Montgomery Co., New York.

SEND FOR PRICE LIST.

New smoker.—Cannot be dispensed with after using it. Price, \$1.50. may74tf